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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/165,248 | 10/01/1998 | SUDHA RATHI | AMAT/2966/PD | 7619 |

32588 7590 12/03/2002

APPLIED MATERIALS, INC.
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| EXAMINER |
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FOURSON III, GEORGE R

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| ART UNIT | PAPER NUMBER |
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2823

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/165,248

Applicant(s)

RATHI ET AL.

Examiner

George Fourson

Art Unit

2823

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 13 November 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.


NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): the rejection of claims 1-8 and 10-13.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☒ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: none.Claim(s) objected to: none.Claim(s) rejected: 15-22.Claim(s) withdrawn from consideration: none.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☒ Other: See Continuation Sheet


George Fourson
Primary Examiner
Art Unit: 2823

Continuation of 10. Other: The affidavit filed under 37 CFR 1.131 does not attempt to establish an invention date prior to the effective date of the reference. The statement of the rejection of claims 15-22 and 28 in the office action mailed 9/5/02 contains a typographical error as noted by applicant in that the rejection is over the the combination of Endo et al and Europe '440 and further in view of applicant's admitted prior art and either one of Zhao and Somekh as evidenced by the statement that "The rejection is maintained as stated in the paper mailed 3/20/02" and the lack of indication of a new grounds of rejection in the office action.

Applicant argues that the combination of Endo et al, Europe '440 and Somekh does not include depositing a copper layer on a TaN barrier layer and formation of a SiC barrier layer on the Cu layer. However, reliance in on applicant's admitted prior art as teaching depositing a copper layer on a TaN barrier layer and on any one of Europe '440, Somekh or Zhao as teaching use of SiC as the barrier layer deposited on Cu in applicant's admitted prior art method depicted in instant figure 1.